

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellant: John X. Zhong, et al.

Assignee: Synopsys, Inc.

Title: DESIGN VERIFICATION BY SYMBOLIC SIMULATION USING  
A NATIVE HARDWARE DESCRIPTION LANGUAGE

Serial No.: 10/620,628 File Date: 07/15/2003

Examiner: Stacy Whitmore Art Unit: 2825

Docket No.: SYN-0551CON1 (formerly 4162P001C)

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Date: August 24, 2006

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Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

REPLY BRIEF

Sir:

This Reply Brief is in response to the Examiner's Answer  
dated July 31, 2006.

REMARKS

The Examiner states in the Examiner's Answer that, "Inputs, nodes, or variables are objects that are treated as symbols by the symbolic simulation. In order to describe the objects, a first statement into the simulator must be used." Appellants respectfully submit that these statements reflect hindsight, not the teaching of York.

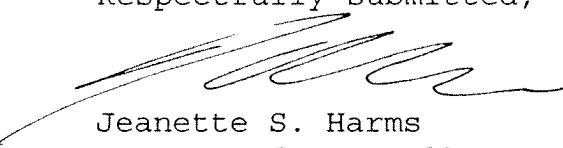
Specifically, "specifying ... [a] hardware description language object that represents at least one signal as a symbol in a design using a first statement" as recited in Claim 1, beneficially allows "the existing hardware description languages ... to support the specification of symbolic input." Specification, page 11, lines 9-11. As a result, "a symbolic simulator [can] in response to the first statement ... treat the at least one hardware description language object as a symbol" as recited by Claim 1, thereby eliminating the need for the user to manually specify the signal during the simulation.

In contrast, York explicitly teaches that symbolic Boolean variables must be applied to the inputs of the receivers before symbolic simulation begins. Page 14, Section 3.3, paragraph 4. Thus, York must fail to describe "specifying at least one hardware description language object that represents at least one signal as a symbol" as well as "instructing a symbolic simulator ... to treat the at least one hardware description language object as a symbol" (both limitations recited in Claim 1 and substantially recited in Claim 11). Therefore, Claims 1 and 11 are allowable under 35 U.S.C. 102(b) over York.

CONCLUSION

For the foregoing reasons, it is submitted that the Examiner's rejections of Claims 1-2, 4, 6-12, 14, and 16-20 are erroneous, and reversal of these rejections is respectfully requested.

Respectfully submitted,



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